IN THE CLAIMS

The following claim listing replaces all prior listings and versions of the claims:

COMPLETE LISTING OF THE CLAIMS:

1. (Currently amended) A refractometer for measuring refractive index of a sample, comprising:

a prism having an interface surface for contacting said sample;

a light source configured to radiate light so that the light enters the prism through an entrance face of said prism and irradiates said interface surface; and

a photoelectric sensor configured to measure a luminous energy distribution of ~~receive~~ light reflected from said interface surface through an exit face of said prism,

wherein said light source and said photoelectric sensor are attached to said entrance face and exit face of said prism, respectively.

2. (Previously Presented) A refractometer according to claim 1, wherein said light source includes a flat light emitting face, said flat light emitting face being adhered to said entrance face of said prism.

3. (Previously Presented) A refractometer according to claim 1, wherein said photoelectric sensor adheres to said exit face of said prism.

4. (Currently amended) A refractometer according to claim 1, further comprising:

a slit extending in a direction perpendicular to a plane-of-incidence, the slit being arranged between said light source and said entrance face of said prism.

5. (Previously Presented) A refractometer, comprising:

a prism having an interface surface, the interface surface being providable with a sample; and

a sample stage arranged surrounding said interface surface,

wherein said sample stage includes a non-adhesive coating.

6. (Previously Presented) A refractometer according to claim 5, wherein said coating includes a material comprising a metal and particles of fluorocarbon polymer evenly distributed.

7. (Previously Presented) A refractometer according to claim 6, wherein said fluorocarbon polymer includes polytetrafluoroethylene.

8. (Previously Presented) A refractometer according to claim 6, wherein said material includes 20-26 vol% fluorocarbon polymer.

9. (Previously Presented) A refractometer according to claim 6, wherein a diameter of said particles of the fluorocarbon polymer is approximately 0.2-0.3 μm.

10. (Previously Presented) A refractometer according to claim 5, wherein said interface surface comprises a coating including fluorocarbon polymer.

11. (Previously Presented) A refractometer, comprising:

a frame having an opening;

a prism arranged in said opening and having an interface surface, the interface surface being providable with a sample;

a light source configured to radiate light to said interface surface; and

a sensor configured to receive light reflected from said interface surface,

wherein said frame includes a sample guide face provided at a perimeter of the opening and surrounding said interface surface,

wherein said sample guide face includes a coating, the coating comprising a material including nickel and particles of fluorocarbon polymer evenly distributed,

wherein said fluorocarbon polymer comprises polytetrafluoroethylene,

wherein said material comprises approximately 20-26 vol% fluorocarbon polymer,

wherein a diameter of said particles of said fluorocarbon polymer is approximately 0.2-0.3 μm, and

wherein said coating is formed using electroless plating processes.

12. (Previously Presented) A refractometer, in which light is radiated from a light source to an interface surface of a prism, for measuring a refractive index of a sample provided on the interface surface of the prism, on a basis of a signal output from a

photoelectric sensor that detects light reflected from said interface surface, the refractometer comprising:

a filter arranged between said interface surface and said photoelectric sensor, wherein said filter comprises:

a wavelength filter configured to selectively allow transmission of light having a wavelength within a prescribed region, including wavelengths of light of said light source; and

a polarizer configured to selectively allow transmission of linearly polarized light, wherein said filter is formed as one integrated body, laminating said wavelength filter and said polarizer to each other.

13. (Currently amended) A refractometer according to claim 12, wherein said wavelength filter comprises:

a first wavelength filter configured to selectively block light having wavelengths within a region ranging from a wavelength 50 nm longer than a wavelength of the light from said light source up to a maximum wavelength detectable by said photoelectric sensor; and

a second wavelength filter configured to selectively block light having wavelengths within a region ranging from a wavelength 30 nm shorter than a wavelength of the light from said light source down to a minimum wavelength detectable by said photoelectric sensor.

14. (Canceled)

15. (Canceled)

16. (Previously Presented) A refractometer according to claim 12, wherein said filter comprises:

a first face that adheres to said prism; and

a second face that adheres to said photoelectric sensor.

17. (Previously Presented) A refractometer according to claim 12, wherein said filter comprises a light reducing filter.

18. (Previously Presented) A refractometer, comprising:

a prism having an interface surface, the interface surface being providable with a sample;

a light source configured to radiate light to said interface surface;

a photoelectric sensor configured to receive light reflected from said interface surface;

a comparator configured to compare a luminous energy value measured by said photoelectric sensor when said light source is not radiating with a tolerance value;

a display configured to display an error when said luminous energy value is greater than said tolerance value;

a controller configured to control said light source to radiate light when said luminous energy value is less than said tolerance value; and

a refractive index calculator configured to calculate a refractive index from a luminous energy distribution measured by said photoelectric sensor when said light source is radiating.

19. (Previously Presented) A refractometer according to claim 18, wherein said display displays said refractive index.

20. (Previously Presented) A method for calculating a refractive index using a refractometer comprising a prism having an interface surface, a light source that radiates light to the interface surface and a photoelectric sensor for receiving light reflected from the interface surface, the method comprising:

measuring a luminous energy distribution using the photoelectric sensor when the light source is not radiating;

comparing the measured luminous energy with a tolerance value;

displaying an error when the measured luminous energy is greater than the tolerance value;

controlling the light source to radiate light and measuring the luminous energy distribution using the photoelectric sensor when the measured luminous energy is less than the tolerance value; and

calculating a refractive index from a luminous energy distribution measured when the light source is not radiating.

21. (Currently Amended) A refractometer for measuring a refractive index of a sample, comprising:

a prism having an interface surface adapted to contact said sample;

a light source configured to radiate light from an entrance face of said prism to said interface surface;

a photoelectric sensor configured to receive light reflected from said interface surface and directed outward from an exit face of said prism; and

a slit extending in a direction perpendicular to a ~~plane of incidence of~~ direction parallel to said interface surface and said entrance face of said prism, the slit being arranged between said light source and said entrance face of said prism,

wherein only said prism and said slit are provided in an optical path between said light source and said photoelectric sensor.